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Pharmacy Survey on Patient Safety Culture: User's Guide

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Chapter 1. Introduction

As pharmacies continually strive to improve safety and quality, there is growing recognition of the importance of establishing a culture of patient safety. Achieving such a culture requires an understanding of the values, beliefs, and norms about what is important in the organization and what attitudes and behaviors related to patient safety are expected and appropriate. A definition of safety culture applicable to all health care settings is provided below.

Safety Culture Definition

The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management. Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety, and by confidence in the efficacy of preventive measures.

Source: Study Group on Human Factors. Organising for safety: third report of the ACSNI (Advisory Committee on the Safety of Nuclear Installations). Sudbury, UK: HSE Books; 1993.

Development of the *Pharmacy Survey on Patient Safety Culture*

Purpose

In November 2004, the Agency for Healthcare Research and Quality (AHRQ) released the *Hospital Survey on Patient Safety Culture (HSOPS)*. The hospital survey has been well received and administered in more than 1,000 hospitals. Subsequently, AHRQ released the *Nursing Home Survey on Patient Safety Culture* in 2008 and the *Medical Office Survey on Patient Safety Culture* in 2009. In response to interest in a survey that focuses on patient safety culture in community pharmacies, AHRQ sponsored the development of the *Pharmacy Survey on Patient Safety Culture*.

The new survey is designed specifically for pharmacy staff and asks for their opinions about the culture of patient safety in their pharmacies. The survey can be used to:

- Raise staff awareness about patient and medication safety,
- Assess the current status of patient safety culture,
- Identify strengths and areas for patient safety culture improvement,
- Examine trends in patient safety culture change over time,
- Evaluate the cultural impact of patient safety initiatives and interventions, and
- Conduct internal and external comparisons.

Survey Development and Pilot Test

Researchers on the survey design team conducted the following activities to identify key dimensions of pharmacy safety culture, relevant background questions about staff and pharmacy characteristics, and appropriate terms and words to use in the survey:

- Reviewed the literature, including existing surveys, pertaining to patient safety, medication safety, pharmacy errors and quality-related events, error reporting, safety climate and culture, and organizational climate and culture.
- Conducted background interviews with experts in the field of pharmacy practice and patient safety and with pharmacy staff, including pharmacists, pharmacy technicians, and pharmacy clerks.

The design team developed draft survey items to measure key dimensions and background characteristics and conducted cognitive interviews with pharmacy staff. Interview participants included pharmacy managers, staff pharmacists, pharmacy interns, and technicians. The design team also received input from a 19-member technical expert panel (TEP). TEP members represented AHRQ, professional associations, universities, and pharmacy chains.

The draft survey was pilot tested in 62 pharmacies across 25 States. Participating pharmacies varied by number of staff and community pharmacy type (independent, supermarket, mass merchant/discount retailer, traditional drugstore, and integrated health system). All eligible staff within each pharmacy were asked to complete the survey.

Analysts examined the reliability and factor structure of the patient safety culture dimensions or composites. Based on these analyses, as well as input from AHRQ and the TEP, the final items and composites in the *Pharmacy Survey on Patient Safety Culture* were determined to have sound psychometric properties (Sorra, Franklin, et al., 2012).

Pharmacy Definition

The purpose of the *Pharmacy Survey on Patient Safety Culture* is to measure the culture of patient safety in a single pharmacy location. A pharmacy chain or health care system may have multiple pharmacies or multiple stores in different locations, but each unique location would be considered a separate pharmacy for the purposes of the survey and for feedback.

This definition is essential because the survey is designed to measure patient safety culture in a **single** pharmacy site. You may, of course, choose to administer the survey to multiple sites in your chain or health care system. If so, each pharmacy has to be identified as a separate site rather than being surveyed as one entity that includes all chain or system pharmacy sites.

The survey was designed for community pharmacies. You may decide, however, that it is appropriate to administer it in other types of pharmacies, such as pharmacies in an integrated health care system or a hospital, or pharmacies that supply dispensed prescriptions only to hospices or nursing homes.

We recommend administering the survey in pharmacies **with at least five staff members** (unless the data will be used in combination with other pharmacy stores). Staff in smaller pharmacies

may not feel that their answers are anonymous and may not be willing to complete the survey or answer honestly. In small pharmacies, you can use the survey as a tool to initiate staff discussion about patient safety issues.

We also recommend that there be at least five respondents in a pharmacy for a survey feedback report to be provided, to protect respondent anonymity. Small pharmacies that are part of a larger chain could have their data aggregated with other stores for feedback purposes.

Identification of Survey Participants

General criteria. The survey is designed to be administered to all staff working in the pharmacy area where prescriptions are dropped off, filled, dispensed, and picked up or prepared for delivery. If your pharmacy is located in a store that sells greeting cards or other household products, you should exclude staff who *do not* work in the pharmacy area of the store. All staff asked to complete the survey should have enough knowledge about your pharmacy and its operations to provide informed answers to the survey questions.

Types of staff. Include staff working daytime, evening, and nighttime shifts in the pharmacy area. This group may include pharmacy clerks and cashiers, pharmacy technicians and aides, pharmacy student interns/externs, and pharmacists (pharmacy managers, pharmacists in charge, staff pharmacists, and pharmacy residents).

You should also include the following types of staff if they meet the general criteria above—that is, they interact with other pharmacy staff working in the dispensing area of your pharmacy and do so often enough to be able to report on the topics assessed in the survey:

- Pharmacy delivery staff.
- Pharmacist and technician floaters.
- Part-time pharmacy staff.
- Store general manager.
- New employees.

Overall, when considering who should complete the survey, ask yourself:

- Does this person know about *day-to-day activities* in the dispensing area?
- Does this person interact regularly with staff working in the dispensing area?

Staff or managers working at more than one pharmacy site. Pharmacy chains or systems may have some staff or managers who work at more than one site. In such cases, distribute the survey to them at the site *where they spend most of their time* and instruct them to answer about that pharmacy only. If they spend an equal amount of time at multiple pharmacies, choose one pharmacy site at which they will receive the survey and instruct them to answer the survey only for that pharmacy.

Patient Safety Culture Composites

The *Pharmacy Survey on Patient Safety Culture* emphasizes patient and medication safety and quality-assurance issues. The survey includes 36 items measuring 11 composites. In addition to the composites, the pharmacy survey includes three items about the frequency of documenting different types of mistakes, three items about respondent background characteristics, an overall rating question, and a section for open-ended comments. The survey has a total of 43 items.

Table 1. Patient Safety Culture Composites and Definitions

Patient Safety Culture Composite	Definition: <i>The extent to which...</i>
Communication About Mistakes	Staff discuss mistakes that happen and talk about ways to prevent mistakes
Communication About Prescriptions Across Shifts	Information about prescriptions is communicated well across shifts and there are clear expectations and procedures for doing so
Communication Openness	Staff freely speak up about patient safety concerns and feel comfortable asking questions; staff suggestions are valued
Organizational Learning—Continuous Improvement	The pharmacy tries to figure out what problems in the work process lead to mistakes and makes changes to keep mistakes from happening again
Overall Perceptions of Patient Safety	There is a strong focus and emphasis on patient safety and the pharmacy is good at preventing mistakes
Patient Counseling	Patients are encouraged to talk to the pharmacist; pharmacists spend enough time talking to patients and tell them important information about new prescriptions
Physical Space and Environment	The pharmacy is well organized and free of clutter; the pharmacy layout supports good workflow
Response to Mistakes	The pharmacy examines why mistakes happen, helps staff learn from mistakes, and treats staff fairly when they make mistakes
Staff Training and Skills	Staff get the training they need, new staff receive orientation, and staff have the skills they need to do their jobs well
Staffing, Work Pressure, and Pace	There are enough staff to handle the workload, staff do not feel rushed, staff can take breaks, and work can be completed accurately despite distractions
Teamwork	Staff treat each other with respect, work together as an effective team, and understand their roles and responsibilities

Modifications to the Survey

The survey was developed to be general enough for use in most pharmacies. But your pharmacy's management may want to ask additional questions about patient and medication safety and quality assurance. We recommend making changes to the survey only when absolutely necessary, because any changes may affect the reliability and validity of the survey and make comparisons with other pharmacies difficult.

Adding items. If your pharmacy adds items to the survey, add these items toward the end of the survey (just before the Background Questions section).

Removing items. Although the survey takes about 10 to 15 minutes to complete, you may want to administer a shorter survey with fewer items. If so, review the list of survey composites and items, identify specific composites your pharmacy does not want to assess, and delete *all* items in those composites. This way, your pharmacy's results on the remaining patient safety culture composites can still be compared with results from other pharmacies using the survey. We do *not* recommend selectively removing items across composites.

Content of This Survey User's Guide

The survey, this user's guide, and other toolkit materials are available on the AHRQ Web site (<http://www.ahrq.gov/qual/patientsafetyculture>). These materials are designed to provide pharmacies with the basic knowledge and tools needed to conduct a patient safety culture assessment, along with ideas for using the data. This guide provides a general overview of the issues and major decisions involved in conducting a survey and reporting the results.

Part One of the user's guide includes the following chapters:

- **Chapter 2—Getting Started:** Provides information on project planning, data collection methods, survey identifiers, vendors, project timelines, project teams, and pharmacy points of contact.
- **Chapter 3—Using Paper Surveys:** Addresses how paper surveys will be distributed and returned, techniques for publicizing and promoting the survey, recommended data collection steps, and survey materials.
- **Chapter 4—Using Web-Only and Mixed-Mode Surveys:** Covers techniques for publicizing and promoting a Web survey, data collection steps for Web-only surveys and for mixed-mode surveys, Web survey communications, and guidelines for Web survey design and pretesting.
- **Chapter 5—Analyzing Data and Producing Reports:** Discusses the steps needed to prepare the data file, reviews analysis issues, and provides suggestions for producing feedback reports.

Part Two of the guide includes the pharmacy survey and a list of the survey items organized by the patient safety culture dimensions they are intended to measure. The appendix includes three sample data collection protocols for pharmacies to use during survey administration: one for paper-only survey administration, one for Web only, and one for mixed mode.

Chapter 2. Getting Started

Before you begin, you need to understand the basic tasks involved in the collection of survey data and decide who will manage the project. This chapter is designed to guide you through the planning and decisionmaking stages of your project.

Determine Available Resources and Project Scope

Two of the most important elements of an effective project are a clear budget to determine the scope of your data collection effort and a realistic schedule. Think about your available resources:

- How much money and resources are available to conduct this project?
- Who within the pharmacy, pharmacy chain, or health care system is available to work on this project?
- When do we need to have the survey results completed and available?
- Do we have the technical capabilities to conduct this project in the pharmacy, or do we need to consider using an outside company or vendor for some or all of the tasks?

You should read this user's guide before deciding on a budget and the project's scope, because it outlines the tasks that need to be accomplished. Each task has interrelated cost and scheduling implications. Use the following guidelines to determine your budget and plan:

- Consider all project tasks and whether the tasks will be performed in-house (by the pharmacy or the chain/system headquarters, or both) or by an outside company or vendor.
- Develop initial budget and scheduling estimates and revise as needed given your available resources, existing deadlines, and project implementation decisions.
- Include a cushion for unexpected expenses and account for tasks that may take longer than expected.

Decide on Your Data Collection Method

The decision to use a paper survey, a Web survey (either via the Internet or through your pharmacy Intranet), or mixed mode should be based on several important factors. Most single pharmacy sites will find that response rates are higher with paper surveys and that the logistics of paper surveys will be manageable. But to help you decide which data collection method is appropriate for your pharmacy (or pharmacies), we discuss five factors you should consider:

1. **Response rates.** Response rates are important because low rates may limit your ability to generalize results to your entire pharmacy. When response rates are low, there is a danger that the large number of staff who did **not** respond to the survey would have answered very differently from those who did respond. Generally, the higher the response rate, the more confident you can be that you have an adequate representation of staff views.

Consider the following response rate findings when deciding how to administer your survey:

- Published research shows that, generally, paper surveys have higher response rates than Web surveys (Dillman, et al., 2009; Lozar Manfreda, et al., 2008; Shih and Fan, 2008).
- The AHRQ *Hospital Survey on Patient Safety Culture 2012 User Comparative Database Report* (Sorra, Famolaro, et al., 2012a) finds that response rates are higher with paper surveys (61 percent) compared with Web only (51 percent) and mixed mode using Web and paper (49 percent).
- The AHRQ *Medical Office Survey on Patient Safety Culture 2012 User Comparative Database Report* (Sorra, Famolaro, et al., 2012b) finds that response rates are highest for mixed-mode data collection (87 percent), followed by paper (80 percent) and Web (66 percent). However, only 2 percent of the medical offices used a mixed-mode approach, so those response results are probably not typical.

2. Your pharmacy's experience with employee surveys. You should also consider the following factors when thinking about the possible use of Web surveys:

- **Limited staff access to computers or email.** If your pharmacy has a limited number of computers or limited access to the Internet, you will not be able to send staff email notifications containing hyperlinks to the survey. Those limitations may cause response rates to suffer. Staff may also be concerned about the privacy of their responses if they share computers and they may decide not to take the survey.
- **Individual differences in computer skills and experience completing Web surveys.** Some staff may not be computer savvy, particularly in taking Web surveys. They may not respond to the survey if this is their only means of completing it.
- **Pharmacy experience with conducting Web surveys.** If you currently survey pharmacy staff online and achieve high response rates, you may prefer administering a Web survey. If you have conducted successful Web surveys, but some pharmacy staff do not have access to computers, you may want to use a mix of both Web and paper.

3. Logistics. In single pharmacies, the logistical burden of managing and administering paper surveys may be quite modest. If you plan to survey multiple pharmacies, however, there are advantages with Web surveys:

- There are no surveys or cover letters to print, survey packets to assemble, postage and mailing envelopes to arrange for, or completed paper surveys to manage.
- The responses are automatically entered into a database, so the need for separate data entry is eliminated.
- The task of data cleaning is reduced because of programmed validation checks.

4. Costs and your pharmacy resources. Another major factor to consider, of course, is cost. Although the costs of a Web survey may seem lower because there are no printing,

postage, or data entry expenses, do not overlook the labor costs associated with Web survey programming and testing or with hiring a vendor. At the same time, if your chain or health care system plans to survey a large number of pharmacies, a Web survey may be more cost effective than a paper survey.

- 5. Survey preparation and testing time.** Preparing a paper survey is relatively simple: Download the survey from the AHRQ Web site and format and print it (e.g., stapled single sheets, booklet, scannable booklet), proofread a sample copy, and produce the number of copies you need. If you are using a Web survey and plan to program it yourself, allow sufficient time and resources to:
- Ensure that the Web survey meets acceptable standards for functionality, usability, and log-in passwords and allows respondents to save their responses and return later to finish the survey;
 - Format the survey appropriately to reduce respondent error;
 - Put security safeguards in place for protecting the data; and
 - Test it thoroughly to ensure that the resulting dataset has captured the data correctly.

In Chapter 4, we review best practices in Web survey design and testing. If you plan to use a vendor to conduct a Web survey, you will need to test the survey. When deciding on a data collection method, carefully consider the pros and cons of each method and choose a method that seems to be cost effective, suited to your pharmacy, and likely to result in a successful response rate and data collection.

Decide Whether To Use Survey Identifiers

You need to decide whether you will use individual survey identifiers and, if you are surveying multiple pharmacies, how you will identify responses from each pharmacy.

Individual Identifiers

Staff completing patient safety culture surveys are usually concerned about the confidentiality of their responses, so we recommend that you conduct an *individually anonymous* survey. This means you should *not* use identifiers to track individuals. Also, *do not* ask respondents to provide their names on completed survey forms. Understand that confidentiality concerns are even stronger in smaller pharmacies. You need to ensure that respondents feel comfortable reporting their true perceptions and confident that their answers cannot be traced back to them.

Pharmacy Identifiers

If you are surveying multiple pharmacies, you *will* want to use pharmacy-level identifiers so that you can identify which surveys came from which pharmacy and produce feedback reports of results for each pharmacy. We offer a few ways of doing this for paper and Web surveys. Our suggestions vary depending on the number of pharmacies you are surveying and how respondents will return their surveys.

Paper Surveys

Vary survey color. If the number of pharmacies you are surveying is not too large, you can print the survey on different colored paper for each pharmacy.

Print a pharmacy identifier on the survey. You can print a pharmacy identifier on the surveys by giving each pharmacy a unique form number. For example, if you are surveying three pharmacies, you would use Form 1, Form 2, and Form 3 to identify these pharmacies. Print the identifier on the survey (e.g., lower left corner of the back page). Be aware, however, that some staff members will be so concerned about the confidentiality of their responses that they might mark out the pharmacy identifier or form number.

Web Survey

You can include a pharmacy identifier as part of the password that is used to access the survey. The password would be linked to a particular pharmacy site. Alternatively, you can use a customized hyperlink for staff within a pharmacy site that differs across sites.

Decide Whether To Use an Outside Vendor

You may want to use an outside company or vendor to handle some or all of your data collection, analysis, and report preparation. Hiring a vendor may be a good idea for several reasons:

- Working with an outside vendor may help ensure neutrality and the credibility of results.
- Staff may feel their responses will be more confidential when they are returned to an outside vendor.
- Vendors typically have experienced staff to perform all the necessary activities and the facilities and equipment to handle the tasks. A professional and experienced firm may be able to provide your pharmacy with better quality results faster than if you were to complete the tasks yourself.

On the other hand, the use of a vendor may add too much expense to your project. If your pharmacy is part of a chain or health care system, find out if the headquarters staff are capable of and interested in conducting a survey of your pharmacy and analyzing the data for you. Your pharmacy chain or system may even be interested in administering the survey companywide. Moreover, your pharmacy's staff may feel more comfortable about the confidentiality of their responses if surveys can be returned to a chain or system headquarters address.

If you plan to hire a vendor, the following guidelines may help you select the right one:

- Look for a vendor with expertise in survey research.
- Determine whether the vendor can handle all the project components. Some vendors will be able to handle your data analysis and feedback report needs; others will not.
- Provide potential vendors with a clear written outline of work requirements. Make tasks, expectations, deadlines, and deliverables clear and specific. Then, ask each vendor to

submit a short proposal describing the work they plan to complete, qualifications of their company and staff, and details regarding methods and costs.

- Meet with the vendor to make sure you will be able to work well together.
- After choosing a vendor, institute monitoring and problem-resolution procedures.

Plan Your Project Schedule

Use the timeline in Figure 1 as a guideline in planning the tasks to be completed for a single pharmacy using a paper survey. Note the modifications we recommend if you plan to administer any surveys via the Web or are surveying multiple pharmacies.

For a single pharmacy, plan for about 5 weeks from the beginning of project planning to the end of data collection if you are conducting a paper-only survey (Figure 1). Add a few more weeks for data cleaning, analysis, and report preparation.

If you plan to administer a Web-only or mixed-mode survey, but have no experience and do not plan to use a vendor, add several weeks to the timeline in Figure 1 during the preparation and planning stage. That will allow time to design, program, and test the survey.

Figure 1. Task Timeline for Project Planning for a Single Pharmacy: Paper Survey

Task Timeline for Project Planning	Preparation/ Planning	Week 1	Week 2	Week 3	Week 4	Week 5
Getting Started - Ch. 2						
Determine available resources and project scope	✓					
Decide on your data collection method	✓					
Decide whether to use survey identifiers to track response	✓					
Decide whether to use an outside vendor (and select vendor)	✓					
Plan your project schedule	✓					
Form a project team	✓					
Establish a point of contact in your pharmacy	✓					
Survey Administration Decisions and Steps - Ch. 3						
Decide how surveys will be distributed and returned	✓					
Develop, print, and assemble survey materials		✓				
Publicize and promote the survey			←————→			
Distribute first survey				✓		
Track responses and calculate preliminary response rates			←————→			
Distribute second survey					✓	
Close out data collection						✓

{ Data collection

If you plan to survey multiple pharmacies in your chain or system, you may need to make some or all of the following adjustments to the timeline:

- Establish a pharmacy-level or chain/system-level point of contact as well as a point of contact in each pharmacy.
- Allow more time for assembling survey materials (e.g., 2 weeks instead of 1 week).
- Distribute a first reminder 1 week after distributing the first survey.

- Distribute a second survey 2 weeks after the first reminder.
- Distribute a second reminder 1 week after distributing the second survey.
- Add a week or more to the data collection period.

Form a Project Team

Whether you conduct the survey in-house or through an outside vendor, you will need to establish a project team responsible for planning and managing the project. Your team may consist of one or more individuals from your own pharmacy staff, chain or health care system headquarters staff, outsourced vendor staff, or a combination. Their responsibilities will include duties such as the following:

- **Planning and budgeting**—Determining the scope of the project given available resources, planning project tasks, and monitoring the budget.
- **Establishing contact persons**—Assigning a point of contact in the pharmacies to support survey administration, maintain open communication throughout the project, and provide assistance.
- **Preparing publicity materials**—Creating flyers, posters, and email and Intranet messages to announce and promote the survey in the pharmacy.
- **Preparing paper survey materials**—Printing surveys, preparing postage-paid return envelopes and labels, and assembling these components for your survey distribution.
- **Developing a Web survey instrument**—Designing the instrument, programming the survey, and pretesting the instrument.
- **Distributing and receiving paper survey materials**—Distributing surveys and reminder notices and handling receipt of completed surveys.
- **Tracking survey responses and calculating preliminary response rates**—Monitoring survey returns and calculating preliminary response rates; if individual identification numbers are used on the surveys to track nonrespondents, identifying the nonrespondents who should receive followup materials.
- **Handling data entry, analysis, and report preparation**—Reviewing survey data for respondent errors and data entry errors in electronic data files, conducting data analysis, and preparing a report of the results.
- **Distributing and discussing feedback results with staff**—Disseminating results broadly to increase their usefulness.
- **Coordinating with and monitoring an outside vendor (optional)**—Outlining the requirements of the project to solicit bids from outside vendors, selecting a vendor, coordinating tasks to be completed in-house versus by the vendor, and monitoring progress to ensure that the necessary work is completed and deadlines are met.

Establish a Point of Contact

You will need to appoint someone from the pharmacy project team to serve as the point of contact (POC) for the survey (e.g., the pharmacy manager). We recommend including the POC's name, job title, and contact information in survey cover letters, invitation emails for Web surveys, reminder notices, and any promotional materials in case respondents have questions about the survey.

The pharmacy POC has several duties, including:

- Promoting the survey.
- Answering questions about survey items, instructions, or processes.
- Responding to staff comments and concerns.
- Helping to coordinate survey distribution and receipt of completed surveys if paper surveys are used.
- Communicating with outside vendors, as needed.
- Communicating with other POCs, as needed.

If you plan to administer the survey in multiple pharmacies in your chain or health care system, you may want to designate a chain- or system-level POC in addition to a POC in each pharmacy participating in the survey. The contact information for this POC should also be included in the survey cover letter (or invitation email) and in any survey reminder notices.

In Chapter 3 we discuss data collection procedures for paper surveys. In Chapter 4 we discuss data collection procedures for Web-only surveys and mixed-mode surveys. We also review guidelines for designing and pretesting Web surveys. If you plan to conduct a mixed-mode survey, you should read both chapters. If you have not yet decided which data collection method to use, reading both chapters can be useful in helping you assess which method will be best for your pharmacy.

Chapter 3. Using Paper Surveys

In this chapter, we present information to help you decide how your paper surveys will be distributed and returned, suggest ways to promote and publicize your survey, and describe survey administration steps and the survey materials you will need to develop.

Decide How Paper Surveys Will Be Distributed and Returned

When deciding how surveys will be distributed and returned, consider any previous experience your pharmacy has had with employee surveys.

Distributing surveys. We recommend that a designated point of contact (POC) distribute the surveys directly to staff in the pharmacy. To promote high participation, you can distribute the surveys at staff meetings and serve refreshments. Regardless of how you distribute the surveys, follow these guidelines:

- Provide explicit instructions for completing the survey.
- Inform staff that completing the survey is voluntary.
- Assure staff that their responses will be kept confidential. Emphasize that reports of findings will include only summary data and will not identify individuals.
- Caution staff (especially if they are completing the survey during a meeting) not to discuss the survey with other staff while answering the survey.
- Permit staff to complete the survey **during work time** to emphasize that pharmacy leaders support the data collection effort.

Returning surveys. If your budget is limited, completed surveys can be returned to a designated POC in the pharmacy or to drop boxes in the pharmacy. These methods of returning surveys, however, may raise staff concerns about the confidentiality of their responses. Rely on your past experience with these methods in your pharmacy when making decisions about how surveys should be returned.

Your pharmacy may have limited experience administering employee surveys, or staff may have confidentiality concerns. In such cases, it is best to have staff mail their completed surveys directly to an outside vendor or to an address outside the pharmacy via postage-paid return envelopes included with the survey.

If you do not use a vendor and are part of a larger pharmacy chain or health care system, consider having the surveys returned to a chain or system headquarters address. This can help reassure staff that no one at their pharmacy will see the completed surveys. Remember, if surveys are returned through the mail, you will need to account for return postage in your budget.

Publicize and Promote the Survey

We strongly recommend publicizing the survey before and during data collection. Be sure to advertise that the survey is supported by pharmacy, chain, or system leaders. Publicity activities may include:

- Posting flyers or posters in the pharmacy, promoting the survey during staff meetings and shift changes, sending staff emails, and posting information about the survey on a pharmacy Intranet.
- Promoting the survey during meetings.
- Having a senior leader or executive send a supportive email during data collection, thanking staff if they have completed the survey and encouraging others to do so.

Follow Survey Administration Steps

We recommend the following basic data collection steps to achieve high response rates.

1. **Optional prenotification letter for paper surveys.** If you have publicized your survey well and your survey cover letter includes important information about the purposes of the survey, distributing a prenotification letter announcing the upcoming survey is optional.
2. **First paper survey.** About 1 week after publicizing the survey, distribute a survey packet to each staff member in your pharmacy. The packet should include the survey, a supporting cover letter, and a return envelope. If you want staff to return their surveys by mail, rather than returning them to the pharmacy POC or dropping them in a special box in the pharmacy, include a preaddressed postage-paid envelope to make it easy for respondents to return their surveys.
3. **Second survey.** To promote a higher response, distribute a second survey to everyone in your pharmacy (it has to go to everyone if you are conducting an individually anonymous survey because you do not know who responded). Include a cover letter in the second survey packet thanking those who have already responded and reminding others to complete the second survey. If you used individual identifiers on your surveys (although not recommended), you can distribute second surveys only to nonrespondents. We recommend the following timeline for distributing second paper surveys:
 - Single small- or medium-sized pharmacies: Distribute the second survey 1 week after the first survey.
 - Multiple or very large pharmacies: Distribute the second survey 2 weeks after distributing the first survey. If response rates remain low, distribute a reminder 1 week after distributing the second survey.

- 4. Calculate preliminary response rates.** Calculate a preliminary response rate at least once a week to track your response progress. To calculate preliminary response rates during data collection, divide the number of returned surveys (numerator) by the number of eligible staff who received the survey (denominator).

Response rate = Number of surveys returned/Number of eligible staff who received a survey

If any staff members end their employment *during* data collection, they are still considered eligible and should be included in the denominator even if they did not complete and return the survey.

Note: At the end of data collection, you will need to adjust your preliminary response rate to reflect decisions made about whether a survey is complete or incomplete, or possibly ineligible. Chapter 5 discusses how to calculate the final official response rate for your pharmacy.

- 5. Close out data collection.** Keep in mind that your goal is to achieve a high response rate. If your response rate is still too low after distributing the second survey, add another week to the data collection period.

Develop and Assemble Survey Materials

Estimate the number of surveys you need to print, and assemble the following materials for your paper survey data collection.

Number of Surveys To Print

We suggest the following printing guidelines:

- If you are conducting an anonymous survey and plan to send second surveys to everyone, print at least twice the number of surveys as staff in your sample. Include a few extra surveys in case some staff misplace theirs.
- If you are tracking responses and will send second surveys only to nonrespondents, you may print fewer surveys overall. For example, if you are administering the survey to 20 staff and your pharmacy typically experiences a 40 percent response to the first survey packet, print 20 first surveys and 12 second surveys (20 staff x 60% nonrespondents = 12), for a total of 32 printed surveys. Then add a few extra surveys in case some staff misplace theirs.

Pharmacy/Chain/System Point-of-Contact Letter and Instructions

Send a letter to the POCs describing the purposes of the survey and explaining their role in the survey effort. The letter should be on letterhead, signed by a senior executive. We also recommend that you provide the POCs with a data collection protocol that describes their tasks, along with a proposed timeline. Appendix A presents a sample data collection protocol.

Publicity Materials

Your publicity materials can help legitimize the survey effort and increase your response rate by including some or all of the following types of information:

- Endorsements of the survey from your pharmacy leaders.
- Clear statements about the purpose of the survey, which is to assess staff attitudes and opinions about patient safety in their pharmacy.
- Description of how the collected data will be used to identify ways to improve patient and medication safety.
- Assurances that only summary (aggregated) data will be reported, thus keeping individual responses confidential.
- Introductions to the survey vendor, if you have chosen to use a vendor.
- Contact information for the designated POC in the pharmacy.

Cover Letter in First Survey Packet

The cover letter that is included in the first survey packet should be on official pharmacy letterhead and signed by a senior pharmacy leader or executive. The cover letter should address the following points:

- Why the pharmacy is conducting the survey and how survey responses will be used.
- How much time is needed to complete the survey.
- Assurances that the survey is voluntary and can be completed during work time.
- Assurance of individual anonymity (if no individual identifiers are used) or confidentiality of response (if individual identifiers are used).
- How to return completed surveys.
- Incentives for survey participation (optional).
- Contact information for the pharmacy POC (and chain/system-level POC, if applicable).

In the cover letter or on the paper survey form, ask staff to complete the survey within 7 days, but **do not print an actual deadline date** on the letter or survey. Sometimes data collection schedules get delayed and you do not want to reprint letters or surveys because they are outdated. In addition, sometimes people will not complete a survey if they notice that it is beyond the deadline date.

Sample Cover Letter Text for Paper Survey

The enclosed survey is part of our pharmacy's efforts to better address patient and medication safety. All staff in the pharmacy are being asked to complete this survey. Your participation is voluntary, but we encourage you to complete the survey to help us improve the way we do things in this pharmacy. It will take about 10 to 15 minutes to complete, and your individual responses will be kept anonymous [say *confidential if you are using respondent identifiers*]. Only group statistics, not individual responses, will be prepared and reported.

Please complete your survey WITHIN THE NEXT 7 DAYS. When you have completed your survey, please [provide return instructions for paper surveys]. [Optional incentive text: In appreciation for participation, staff who complete and return their surveys will receive (describe incentive).]

Please contact [POC name and job position] if you have any questions [provide phone number and email address]. Thank you in advance for your participation in this important effort.

Cover Letter in Second Paper Survey Packet

The contents of the second survey cover letter should be similar to the first cover letter but should have a different beginning. If you conduct an anonymous survey, you will have to distribute second surveys to everyone, so you might say: "About *X* days ago a copy of the *Pharmacy Survey on Patient Safety* was distributed to you and other staff at your pharmacy. If you have already returned a completed survey, thank you very much and please disregard this second survey packet."

If you use individual identifiers, you can send the second survey to nonrespondents only, so you might begin as follows: "About *X* days ago a copy of the *Pharmacy Survey on Patient Safety* was distributed to you and other staff at your pharmacy. Because we have not yet received a completed survey from you, we are enclosing a second copy of the survey (if you recently returned your survey, thank you and please disregard this second survey)."

Followup Reminder Notices

If needed to improve response, distribute reminder notices after the second survey administration. The notices, which can be on a half-page of cardstock, should ask staff to please complete and return their surveys and should include a thank you to those who have done so already. If you use individual identifiers to track responses, you can distribute the reminders to nonrespondents only.

Labels and Envelopes for Paper Survey Packets

Outer envelope labels with names are a good idea even if the survey itself is completed anonymously to ensure that every staff member receives a survey. Self-addressed return labels should be used on return envelopes. Labels may also be used to place pharmacy identifiers on the surveys.

Use a slightly larger outer envelope to keep from bending or folding the survey or return envelope contained in the survey packet. Use your estimate of the number of surveys to print to estimate the numbers of outer and return envelopes you will need.

Postage for Returning Paper Surveys

If staff will return their surveys by mail, weigh the survey and the return envelope to ensure that you have adequate postage on the envelopes. When calculating the total cost of postage, be sure to base the amount on your estimated number of any initial **and** followup surveys that need to be mailed.

Chapter 4. Using Web-Only and Mixed-Mode Surveys

In this chapter, we suggest ways to publicize your survey, describe survey administration steps for Web-only and mixed-mode surveys, describe materials that need to be developed, and highlight important best practices in Web survey design and pretesting.

Publicize and Promote the Survey

As with paper surveys, we strongly recommend publicizing the survey before and during data collection. Be sure to advertise that the survey is supported by pharmacy, chain, or system leaders. Publicity activities may include:

- Posting flyers or posters in the pharmacy, promoting the survey during staff meetings and shift changes, sending staff emails, and posting information about the survey on a pharmacy Intranet.
- Promoting the survey during any meetings.
- Having a senior leader or executive send a supportive email during data collection, thanking staff if they have completed the survey and encouraging others to do so.

Follow Survey Administration Steps

We recommend the following basic data collection steps to achieve high response rates.

- 1. Prenotification email.** For a Web survey, if all or most staff have email access in the pharmacy, we recommend sending staff a prenotification email telling them about the upcoming survey and alerting them that they will soon receive an invitation to complete the Web survey. You will need an up-to-date list of staff email addresses.
- 2. Survey invitation email.** Send the survey invitation email a few days after sending the prenotification email. Include the hyperlink to the Web survey (or instructions for accessing the survey on the pharmacy Intranet), along with the individual's password, if applicable. Provide instructions about whom to contact about technical problems accessing and navigating the survey.
- 3. Followup communications.** Send an email reminder a week after sending the survey invitation. In the message, thank those who have already completed the survey and encourage others to do so. Distribute a second reminder a week later. Consider sending a third email reminder to boost response as needed. Be sure to make the subject lines of followup email reminder messages slightly different to capture the recipients' attention.

If you use individual identifiers and can determine who has completed the survey, you can send email reminder notices only to nonrespondents. Otherwise, reminders must be sent to everyone. Be sure to thank those who have already completed their surveys and ask them to disregard the reminder.

Because individuals respond differently to various forms of communication, we recommend using a combination of printed reminders and electronic reminders.

- 4. Calculate preliminary response rates.** Calculate a preliminary response rate at least once a week to track your response progress. To calculate preliminary response rates during data collection, divide the number of returned surveys (numerator) by the number of eligible staff who received the survey (denominator).

Response rate = Number of surveys returned/Number of eligible staff who received a survey

If any staff members end their employment *during* data collection, they are still considered eligible and should be included in the denominator even if they did not complete and return the survey.

Note: At the end of data collection, you will need to adjust your preliminary response rate to reflect decisions made about whether a survey is complete or incomplete, or possibly ineligible. Chapter 5 discusses how to calculate the final official response rate for your pharmacy.

- 5. Close out data collection.** Keep in mind that your goal is to achieve a high response rate. If your response rate is still too low after distributing the second survey, add another week to the data collection period.

Survey Administration Steps for Mixed-Mode Surveys

Administer the Web survey first, followed by a paper survey.

- Week 1: Carry out Web survey administration steps for the first week of data collection.
- Week 2: Email or distribute a followup reminder.
- Week 3: Distribute survey packets to all staff (or to nonrespondents only if using identifiers to track response). In the cover letter, tell staff to disregard the paper survey if they completed and submitted the Web survey.
- Follow paper survey administration steps but continue the Web survey option. For followup reminders (if needed), you can use a mix of email and printed (or in-person) reminders.

Develop Survey-Related Materials

The following materials will need to be developed in preparation for Web survey data collection.

Pharmacy/Chain/System Point-of-Contact Letter and Instructions

Send a letter to POCs describing the purposes of the survey and explaining their role in the survey effort. The letter should be on letterhead, signed by a senior executive. We also recommend that you provide the POCs with a simple data collection protocol that describes their tasks, along with a proposed timeline. (Appendix B presents a sample data collection protocol.)

Publicity Materials

Your publicity materials can help legitimize the survey effort and increase your response rate by including some or all of the following types of information:

- Endorsements of the survey from your pharmacy leaders.
- Clear statements about the purpose of the survey, which is to assess staff attitudes and opinions about patient safety in their pharmacy.
- Description of how the collected data will be used to identify ways to improve patient and medication safety.
- Assurances that only summary (aggregated) data will be reported, thus keeping individual responses confidential.
- Introductions to the survey vendor, if you have chosen to use a vendor.
- Contact information for the designated POC in the pharmacy.

Prenotification Email

We recommend the following for the prenotification email to help boost survey response:

- Have it signed by a senior pharmacy leader or executive.
- Use a name or email address in the “From” line that will be easily recognizable to staff to prevent them from mistaking your email for spam and deleting it.
- Include the following points in your message:
 - Statement that in a few days the person will receive an invitation from [XXX] to participate in a brief survey on patient safety in the pharmacy.
 - Statement about the purpose and intended use of the survey and the importance of responding.
 - Confidentiality or anonymity assurances.
 - Introduction to survey vendor (if applicable).

Survey Invitation

The survey invitation email should also be signed by a senior pharmacy leader or executive. We recommend providing hyperlinks to the Web survey in your invitation email and any followup email reminders. Respondents will be able to directly select the hyperlink. You may also provide passwords for beginning the survey. If the survey is located on the pharmacy Intranet, provide instructions for accessing the survey. The survey invitation message should include the following information:

- Brief restatement of why the pharmacy is conducting the survey, how it will use the data, and why the staff member’s response is important.
- How much time is needed to complete the survey.
- Assurances that the survey is voluntary and can be completed during work time.

- Assurance of individual anonymity (if no individual identifiers are used) or confidentiality of response (if individual identifiers are used).
- Suggested reply timeframe (but do not put a deadline date on the survey itself in case data collection is extended).
- Incentives for survey participation (optional).
- Contact information for the pharmacy POC (and chain/system-level POC, if applicable).
- Contact information if someone other than the POC will handle questions about possible technical problems with the survey.

Followup Reminder Notices

If needed to improve response, send email reminder notices a few days after data collection begins and again a week after that. If some staff do not have email access, you can prepare the reminders on a half-page of cardstock and distribute to staff. The reminder notice should ask them to please complete and return their surveys and should include a thank you to those who have done so already. If you use individual identifiers to track responses, you can email or distribute reminders to nonrespondents only.

Sample Survey Invitation Email (Web Survey)

You are invited to participate in an important survey. It is part of our pharmacy's efforts to better address patient and medication safety. All staff in the pharmacy are being asked to complete this survey. Your participation is voluntary, but we encourage you to complete the survey to help us improve the way we do things in this pharmacy. It will take about 10 to 15 minutes to complete and you may take it during work time. Your individual responses will be kept anonymous [*say confidential if you use respondent identifiers*]. Only group statistics, not individual responses, will be prepared and reported.

To access the secure survey Web site, click on the following link:
<http://www.xxxxxxxx>.

Then copy and paste (or enter) the following password to begin the survey:
 Xxxxxxxx.

Please complete and submit your survey WITHIN THE NEXT 7 DAYS. [*Optional incentive text: In appreciation for participation, staff will receive (describe incentive).*]

Please contact [*POC name and job position*] if you have any questions about the survey [*provide phone number and email address*]. If you are having a technical problem with the survey, please respond to this email with a description of your problem or contact [*Name, phone number*].

Thank you in advance for participating in this important patient safety effort.

Electronic Signature of Senior Pharmacy Leader

Design and Pretest Web Surveys

If you decide after weighing the pros and cons of conducting a Web survey that this is the approach you will take, you will need to consider a number of Web survey design elements. If you plan to use commercial off-the-shelf software rather than having a vendor design and develop a custom Web survey, assess the various available software applications and select the product that best handles the many features and recommendations discussed below.

Web Survey Design Features

Although research on the best ways to design Web-administered surveys continues to evolve, current knowledge suggests that a good Web survey has the following elements.

Do not force respondents to answer every question. There are several good reasons for allowing staff to choose not to answer a particular question:

- Forcing respondents to answer each question may annoy respondents and lessen their motivation to complete the survey.
- Some respondents may have legitimate reasons for not answering an item. Forcing a response may cause them to make a wild guess, rather than provide an informed answer.
- The Web version should be similar to the paper version, which does not require an answer to every question.

Decide on the number of questions on each Web page. The *Pharmacy Survey on Patient Safety Culture* includes an opening page with definitions and instructions as well as six sections, three of which are somewhat lengthy. Several options exist for Web page layouts of the survey:

- **Option 1:** A single scrollable Web page for the full survey (would require extensive vertical scrolling).

Using a single page allows respondents to see the entire questionnaire with little effort, but respondents may miss questions due to extensive scrolling. In addition, answers are not usually sent to the server until the full Web page is completed and the survey is submitted. If respondents break off while taking the survey, they will need to start again at the beginning when they return to the survey. Special scripting can be used to capture answers before final submission, but that feature may be disabled on the computers staff will use.

- **Option 2:** One Web page for each section of the survey (would include scrolling vertically in larger sections of the survey).

Using one Web page for each section of the pharmacy survey would greatly reduce the amount of vertical scrolling and allow capturing of responses at the end of each section, rather than at the end of the survey. The survey can be programmed to allow respondents to move back and forth across the Web pages before they submit their completed survey.

- **Option 3:** Multiple Web pages to avoid vertical scrolling.

This option eliminates vertical scrolling as a source of response error. On the downside, it may take respondents slightly longer to answer the survey because they have to visit more pages. Also, if respondents want to review an earlier answer in the same section, they may have to move backward a page or two to locate that answer.

We do *not* recommend that you format the pharmacy survey with one *item* per page. That format would increase the time it takes to complete the survey, and you may introduce undesirable response effects if related items in the pharmacy survey are widely separated from each other.

Also, never program the survey so that respondents must scroll horizontally to see parts of the survey. That format can be annoying and may contribute to response error if respondents overlook parts of the survey.

Make sure the response categories (e.g., Strongly Disagree, Disagree) always appear on the screen. Response errors may occur if staff cannot see the response categories when answering survey items. To prevent this problem, when you program the Web survey and the format requires respondents to scroll down, ensure that the response categories are repeated as frequently as needed so that respondents see them when answering every question.

Use a screen resolution of at least 800 by 600 pixels when programming and testing the Web survey because this issue is more problematic the larger the screen resolution. The following example shows you the right way to program the survey with vertical scrolling.

SECTION A: Working in This Pharmacy

How much do you agree or disagree with the following statements? Remember, "staff" means everyone working in this pharmacy.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Does Not Apply or Don't Know
1. This pharmacy is well organized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Staff treat each other with respect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Technicians in this pharmacy receive the training they need to do their jobs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Staff in this pharmacy clearly understand their roles and responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. This pharmacy is free of clutter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Does Not Apply or Don't Know
6. Staff in this pharmacy have the skills they need to do their jobs well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The physical layout of this pharmacy supports good work flow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Staff who are new to this pharmacy receive adequate orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Staff work together as an effective team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Staff get enough training from this pharmacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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For format option 3 (multiple Web pages with no vertical scrolling), repeat the Section head at the top of each page in that section. Add “Continued” to the Section head to indicate it is not the first page in the section, as shown in this example:

SECTION A: Working in This Pharmacy (Continued)

How much do you agree or disagree with the following statements?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Does Not Apply or Don't Know
6. Staff in this pharmacy have the skills they need to do their jobs well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The physical layout of this pharmacy supports good work flow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Staff who are new to this pharmacy receive adequate orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Staff work together as an effective team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Staff get enough training from this pharmacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Provide respondents with a way to assess their survey progress (optional). For a relatively short instrument like the *Pharmacy Survey on Patient Safety Culture*, a progress indicator is optional. Nevertheless, you could use a graphic progress bar that shows completion or indicates completion percentages at various points, such as “Survey is 50% complete” or “Page 2 of 4.”

Allow respondents to print a hard-copy version of the survey and complete it on paper (optional). Some respondents will prefer to complete a paper version of the survey, and providing this option may boost your response rate. It is possible to design your Web survey so it can be printed in paper form, but test this functionality thoroughly to ensure that the survey prints properly on different printers. Attention must be given to line lengths and page lengths in the design of the Web survey pages.

Alternatively, you can include a link to a portable document file (PDF) version of the survey on the Web site. With either alternative, respondents will need instructions to know where to return the completed paper surveys. Designated personnel then must enter the responses into your dataset (paper survey data can be entered via the Web site). Also, if you use individual or pharmacy-level identifiers, there should be a way to include the identifier on the printed version of the survey or otherwise identify the paper response.

Thoroughly Test the Survey

It is essential to conduct thorough tests of the survey. When testing:

- Use the same type of computer that will be available to staff taking the survey in your pharmacy. If you have more than one type of computer, or if staff will have the option to take the survey on a nonpharmacy computer, be sure to test with a range of computer types and include the lower end type with slower Internet connections.
- Test the survey with various Internet browsers (e.g., different iterations of Internet Explorer, Safari, Firefox, Chrome, Mozilla, Opera), different display settings (screen resolutions set at 800 x 600 pixels versus 1280 x 800 pixels), and so forth.
- After you have completed the first two testing steps, submit test survey responses to ensure that the Web survey is working properly and is easy to use.
- Check the Web survey data output. For example, check to make sure that *Does Not Apply/Don't Know* responses show up with a value of 9, not a value of 1 through 5. Also, make sure that the other responses (e.g., *Strongly Disagree* through *Strongly Agree*) have the correct 1 to 5 values. If the Web responses are miscoded, there is no way to correct the data set after the survey has been administered.

Testing will help to ensure that the survey appears and performs as it should despite the different settings and personal preferences that staff may use. For more information on Web survey design principles and survey testing, see Couper (2008) and Dillman, Smyth, and Christian (2009).

Chapter 5. Analyzing Data and Producing Reports

You will need to prepare the collected survey data for analysis. If you decide to do your own data entry, analysis, and report preparation, use this chapter to guide you through the various decisions and steps. If you decide to hire a vendor for any of these tasks, use this chapter as a guide to establish data preparation procedures.

If you plan to conduct a Web survey, you can minimize data cleaning by programming the Web survey to perform some of these steps automatically. Also, if you plan to administer the survey in more than one pharmacy, you will need to report the results separately for each site.

Identify Incomplete and Ineligible Surveys

Examine each returned survey for possible problems before the survey responses are entered into the dataset. We recommend that you exclude returned surveys that:

- Are completely blank or contain responses only for the background demographic questions or
- Contain the exact same answer to all the questions in the survey (since a few survey items are negatively worded, the same exact response to all items indicates the respondent probably did not pay careful attention and the responses are probably not valid).

Calculate the Final Response Rate

After you have identified which returned surveys will be included in the analysis data file, you can use the following formula to calculate the official response rate:

$$\frac{\text{Number of returned surveys} - \text{incompletes and ineligible}}{\text{Number of eligible staff who received a survey}}$$

Note that the numerator may be smaller than in your last preliminary response rate calculation because, during your examination of all returned surveys, you may find that some of the returned surveys are incomplete or ineligible.

Edit the Data and Prepare the Data File

In this section we describe several data file preparation tasks.

Edit Illegible, Mismarked, and Double-Marked Responses

Problematic responses may occur with paper surveys if some respondents write in an answer such as 3.5 when they have been instructed to mark only one numeric response. Or they may mark two answers for one item. Develop and document editing rules that address these problems and apply them consistently. Examples of such rules are to use the highest response when two responses are provided (e.g., a response with both 2 and 3 would convert to a 3) or to mark all of these types of inappropriate responses as missing.

Create and Clean Data File

Paper survey data files. After your paper surveys have been edited as necessary, you can enter the data directly into an electronic file by using statistical software such as SAS[®], SPSS[®], or Microsoft Excel[®], or you can create a text file that can be easily imported into a data analysis software program. The next step is to check the data file for possible data entry errors. To do so, produce frequencies of responses for each item and look for out-of-range values or values that are not valid responses.

Most items in the survey require a response between 1 and 5, with a 9 coded as *Does Not Apply/Don't Know*. Check through the data file to ensure that all responses are within the valid range (e.g., that a response of 7 has not been entered). If you find out-of-range values, return to the original survey and determine the response that should have been entered.

Web surveys. Your pretesting should have ensured that responses would be coded and captured correctly in the data file, so the file should not contain invalid values. But you should verify that this is so by again checking that all responses are within the valid range.

Include Individual Identifiers on Your Data File

If you used individual identifiers on your surveys, after you close out data analysis and enter identification numbers in the electronic data file, destroy any information linking the identifiers to individual names. You want to eliminate the possibility of linking responses in the electronic file to individuals.

If you used paper surveys *without* individual identifiers on them, you will need to include some type of respondent identifier in the data file. Create an identification number for each completed paper survey and write it on the completed paper survey in addition to entering it into the electronic data file. This identifier can be as simple as numbering the returned surveys consecutively, beginning with the number 1. This number will enable you to check the electronic data file against a respondent's original answers if any values look like they were entered incorrectly.

If you used Web surveys without respondent identifiers, you can electronically generate and assign an identifier to each respondent in the data file.

Deidentify, Analyze, and Code Open-Ended Comments

Respondents are given the opportunity to provide written comments at the end of the survey. Comments can be used to obtain direct quotes for feedback purposes, but they should be carefully reviewed and deidentified first to ensure they do not contain any information that could be used to identify the person who wrote the comment or identify individuals who may be commented about.

You may also want to analyze the comments and identify common themes (e.g., communication, staffing, teamwork). You can then assign code numbers to match comments to themes and tally the number of comments per theme. Open-ended comments on paper surveys may be coded either before or after the data have been entered electronically.

Analyze the Data and Produce Reports of the Results

Feedback reports are the final step in a survey project and are critical for synthesizing the survey responses. Ideally, feedback should be provided broadly—to pharmacy management, chain and system patient safety officers and other senior managers, and pharmacy staff, either directly during meetings or through communication tools such as email, Intranet sites, or newsletters.

The more broadly the results are disseminated, the more useful the information is likely to become and the more likely respondents will feel taking the survey was worthwhile. Feedback reports can be customized for each audience, from one- or two-page executive summaries to more complete reports that use statistics to draw conclusions or make comparisons.

Frequencies of Response

One of the simplest ways to present results is to calculate the frequency of response for each survey item. To make the results easier to view in a report, you can combine the two lowest response categories (e.g., *Strongly Disagree/Disagree* or *Never/Rarely*) and the two highest response categories (e.g., *Strongly Agree/Agree* or *Most of the Time/Always*). The midpoints of the scales can be reported as a separate category (*Neither Agree nor Disagree* or *Sometimes*).

Most survey items include a *Does Not Apply/Don't Know* response option. In addition, each survey item will probably have some missing data from respondents who simply did not answer the question. *Does Not Apply/Don't Know* and missing responses are *excluded* when displaying percentages of response to the survey items.

When using a statistical software program, you will recode the “9” response (*Does Not Apply/Don't Know*) as a missing value so that it is not included when displaying frequencies of response. An example of how to handle the *Does Not Apply/Don't Know* and missing responses when calculating survey results is shown in Table 2.

Table 2. Example of How To Compute Frequency Percentages

Item A2. Staff Treat Each Other With Respect			
Response	Frequency (Number of Responses)	Response Percentage	Combined Percentages
1 = Strongly Disagree	1	10%	30% Negative
2 = Disagree	2	20%	
3 = Neither	1	10%	10% Neutral
4 = Agree	4	40%	60% Positive
5 = Strongly Agree	2	20%	
Total	10	100%	100%
9 = Does Not Apply/Don't Know and Missing (did not answer)	3	-	-
Total Number of Responses	13	-	-

Item and Composite Percent Positive Scores

It can be useful to calculate a composite score for each dimension. To calculate your pharmacy's composite score on a particular safety culture dimension, simply average the percent positive response on each item that is included in the composite. Here is an example of computing a composite score for the dimension *Response to Mistakes*:

Example: There are four items in this dimension—three are positively worded (items C1, C4, and C7) and one is negatively worded (item C8). Keep in mind that DISAGREEING with a negatively worded item indicates a POSITIVE response.

Calculate the percent positive response at the item level (see example in Table 3). In this example, there were four items with percent positive response scores of 71 percent, 75 percent, 70 percent, and 64 percent. Averaging these item-level percent positive scores $[(71\% + 75\% + 70\% + 64\%) / 4]$ results in a percent positive composite score of 70 percent positive on *Response to Mistakes*.

Table 3. Example of How To Calculate Item and Composite Percent Positive Scores

Four items measuring Response to Mistakes	For <u>positively</u> worded items, # of “Strongly Agree” or “Agree” responses	For <u>negatively</u> worded items, # of “Strongly Disagree” or “Disagree” responses	Total # of responses to the item (excluding NA/DK & missing responses)	Percent positive response to item
Item C1-positively worded: “Staff are treated fairly when they make mistakes”	10	NA	14	10/14=71%
Item C4-positively worded: “This pharmacy helps staff learn from their mistakes rather than punishing them”	9	NA	12	9/12=75%
Item C7-positively worded: “We look at staff actions and the way we do things to understand why mistakes happen in this pharmacy”	7	NA	10	7/10=70%
Item C8-negatively worded: “Staff feel like their mistakes are held against them”	NA	9	14	9/14= 64%
NA = Not applicable	Average percent positive response across the 4 items = 70%			

Do Not Report Results If There Are Not Enough Respondents

To protect the confidentiality of individual respondents, do not provide any type of survey feedback report for a pharmacy **if fewer than five respondents have answered the survey**. Also, if a pharmacy has five overall respondents, but fewer than three respondents answered a particular survey item, do not report percentages of positive, neutral, or negative response for that item—simply indicate there were not enough data to report results for the item.

It is also important to present information about the background characteristics of all respondents—how long they worked in the pharmacy, their staff positions, and weekly hours. This information helps others to better understand whose opinions are represented in the data. However, be careful not to report item results if the total number of respondents is fewer than three, where it may be possible to determine which employees fall into those categories. For example, if only two employees reported that they work in the pharmacy for 1 to 16 hours per week, you can combine those respondents with respondents reporting they work 17 to 31 hours per week if the total number of respondents in the combined group is three or more.

Technical Assistance

For free technical assistance on the *Pharmacy Survey on Patient Safety Culture* regarding survey administration issues, data analysis and reporting, or action planning for improvement, you can email SafetyCultureSurveys@ahrq.hhs.gov.

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SURVEY MATERIALS

Pharmacy Survey on Patient Safety Culture

Survey Items Grouped by Dimensions

Pharmacy Survey on Patient Safety

This survey asks for your opinions about patient safety in this pharmacy and takes about 15 minutes to complete. Answer only about the pharmacy location/store where you received this survey.

- ▶ **Staff** means **EVERYONE who works in this pharmacy**, including pharmacists, pharmacy technicians, pharmacy clerks, etc.
- ▶ **Patient safety** is the prevention of patient harm resulting from the processes of health care delivery. In the pharmacy setting, it means that:
 - The right patient receives the right medication in the right dose at the right time by the right route, and
 - The patient or caregiver understands the purpose and proper use of the medication.
- ▶ A **mistake** is any type of medication error, mistake, incident, or quality-related event, regardless of whether or not it reaches the patient or results in patient harm. Mistakes may be related to, or include:
 - Prescribing, transcribing, dispensing, administering, monitoring (use of medication), unsafe conditions or procedures in the pharmacy, etc.
- ▶ If a question does not apply to you or you don't know the answer, please answer "Does Not Apply or Don't Know."

SECTION A: Working in This Pharmacy

How much do you agree or disagree with the following statements? Remember, "staff" means everyone working in this pharmacy.	Strongly Disagree ▼	Disagree ▼	Neither Agree nor Disagree ▼	Agree ▼	Strongly Agree ▼	Does Not Apply or Don't Know ▼
1. This pharmacy is well organized	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
2. Staff treat each other with respect	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
3. Technicians in this pharmacy receive the training they need to do their jobs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
4. Staff in this pharmacy clearly understand their roles and responsibilities	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
5. This pharmacy is free of clutter	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
6. Staff in this pharmacy have the skills they need to do their jobs well.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
7. The physical layout of this pharmacy supports good workflow.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
8. Staff who are new to this pharmacy receive adequate orientation.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
9. Staff work together as an effective team	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
10. Staff get enough training from this pharmacy	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9

SECTION B: Communication and Work Pace

How often do the following statements apply to this pharmacy?	Never ▼	Rarely ▼	Some- times ▼	Most of the Time ▼	Always ▼	Does Not Apply or Don't Know ▼
1. Staff ideas and suggestions are valued in this pharmacy	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
2. We encourage patients to talk to pharmacists about their medications	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
3. Staff take adequate breaks during their shifts.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
4. We have clear expectations about exchanging important prescription information across shifts.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
5. Staff feel comfortable asking questions when they are unsure about something	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
6. We have standard procedures for communicating prescription information across shifts.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
7. Our pharmacists spend enough time talking to patients about how to use their medications.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
8. Staff in this pharmacy discuss mistakes	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
9. We feel rushed when processing prescriptions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
10. It is easy for staff to speak up to their supervisor/ manager about patient safety concerns in this pharmacy.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
11. Our pharmacists tell patients important information about their new prescriptions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
12. We have enough staff to handle the workload.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
13. When patient safety issues occur in this pharmacy, staff discuss them.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
14. The status of problematic prescriptions is well communicated across shifts.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
15. In this pharmacy, we talk about ways to prevent mistakes from happening again	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
16. Interruptions/distractions in this pharmacy (from phone calls, faxes, customers, etc.) make it difficult for staff to work accurately	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9

SECTION C: Patient Safety and Response to Mistakes

How much do you agree or disagree with the following statements?	Strongly Disagree ▼	Disagree ▼	Neither Agree nor Disagree ▼	Agree ▼	Strongly Agree ▼	Does Not Apply or Don't Know ▼
1. Staff are treated fairly when they make mistakes	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
2. When a mistake happens, we try to figure out what problems in the work process led to the mistake	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
3. This pharmacy places more emphasis on sales than on patient safety	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
4. This pharmacy helps staff learn from their mistakes rather than punishing them	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
5. When the same mistake keeps happening, we change the way we do things	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
6. This pharmacy is good at preventing mistakes	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
7. We look at staff actions <u>and</u> the way we do things to understand why mistakes happen in this pharmacy	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
8. Staff feel like their mistakes are held against them ..	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
9. The way we do things in this pharmacy reflects a strong focus on patient safety	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
10. Mistakes have led to positive changes in this pharmacy	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9

SECTION D: Documenting Mistakes

In this pharmacy, how often are the following types of mistakes documented (in writing OR tracked electronically)?

	Never Documented ▼	Rarely Documented ▼	Sometimes Documented ▼	Most of the Time Documented ▼	Always Documented ▼	Does Not Apply or Don't Know ▼
1. When a mistake reaches the patient and <u>could cause harm but does not</u> , how often is it documented?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
2. When a mistake reaches the patient but has <u>no potential to harm</u> the patient, how often is it documented?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
3. When a mistake <u>that could have harmed the patient is corrected BEFORE the medication leaves the pharmacy</u> , how often is it documented?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9

SECTION E: Overall Rating

1. Think back on the survey topics and the definition of patient safety—dispensing the right medication accurately and making sure patients understand their medications and how to use them:

How do you rate this pharmacy on patient safety?

Poor	Fair	Good	Very Good	Excellent
▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

SECTION F: Background Questions

1. How long have you worked in this pharmacy?

- | | |
|--|---|
| <input type="checkbox"/> a. Less than 6 months | <input type="checkbox"/> d. 3 years to less than 6 years |
| <input type="checkbox"/> b. 6 months to less than 1 year | <input type="checkbox"/> e. 6 years to less than 12 years |
| <input type="checkbox"/> c. 1 year to less than 3 years | <input type="checkbox"/> f. 12 years or more |

2. Typically, how many hours per week do you work in this pharmacy?

- | | |
|---|---|
| <input type="checkbox"/> a. 1 to 16 hours per week | <input type="checkbox"/> c. 32 to 40 hours per week |
| <input type="checkbox"/> b. 17 to 31 hours per week | <input type="checkbox"/> d. More than 40 hours per week |

3. What is your position in this pharmacy? *Check ONE category that best applies to your job.*

- a. Pharmacist (including pharmacy manager, lead pharmacist, pharmacist-in-charge, staff pharmacist)
- b. Pharmacy technician (including lead technician and staff technician)
- c. Pharmacy clerk or pharmacy cashier
- d. Pharmacy student intern/extern
- e. Other (Please write your job title): _____

SECTION G: Your Comments

Please feel free to write any comments about how things are done or could be done in your pharmacy that might affect patient safety.

THANK YOU FOR COMPLETING THIS SURVEY.

Pharmacy Survey on Patient Safety Culture: Composites and Items

In this document, the items in the Pharmacy Survey on Patient Safety Culture are grouped according to the safety culture composites they are intended to measure. The item's survey location is shown to the left of each item. Negatively worded items are indicated. Reliability statistics (Cronbach's alpha) based on the pilot test data from 60 pharmacies and 496 staff are provided for the composites.

1. Physical Space and Environment

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does Not Apply or Don't Know)

How much do you agree or disagree with the following statements?

- A1. This pharmacy is well organized.
- A5. This pharmacy is free of clutter.
- A7. The physical layout of this pharmacy supports good workflow.

Reliability of this composite—Cronbach's alpha (3 items) = .76

2. Teamwork

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does Not Apply or Don't Know)

How much do you agree or disagree with the following statements?

- A2. Staff treat each other with respect.
- A4. Staff in this pharmacy clearly understand their roles and responsibilities.
- A9. Staff work together as an effective team.

Reliability of this composite—Cronbach's alpha (3 items) = .85

3. Staff Training and Skills

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does Not Apply or Don't Know)

How much do you agree or disagree with the following statements?

- A3. Technicians in this pharmacy receive the training they need to do their jobs.
- A6. Staff in this pharmacy have the skills they need to do their jobs well.
- A8. Staff who are new to this pharmacy receive adequate orientation.
- A10. Staff get enough training from this pharmacy.

Reliability of this composite—Cronbach's alpha (4 items) = .89

4. Communication Openness

(Never, Rarely, Sometimes, Most of the Time, Always, Does Not Apply or Don't Know)

How often do the following statements apply to this pharmacy?

- B1. Staff ideas and suggestions are valued in this pharmacy.
- B5. Staff feel comfortable asking questions when they are unsure about something.
- B10. It is easy for staff to speak up to their supervisor/ manager about patient safety concerns in this pharmacy.

Reliability of this composite—Cronbach's alpha (3 items) = .79

5. Patient Counseling

(Never, Rarely, Sometimes, Most of the Time, Always, Does Not Apply or Don't Know)

How often do the following statements apply to this pharmacy?

- B2. We encourage patients to talk to pharmacists about their medications.
- B7. Our pharmacists spend enough time talking to patients about how to use their medications.
- B11. Our pharmacists tell patients important information about their new prescriptions.

Reliability of this composite—Cronbach's alpha (3 items) = .74

6. Staffing, Work Pressure, and Pace

(Never, Rarely, Sometimes, Most of the Time, Always, Does Not Apply or Don't Know)

How often do the following statements apply to this pharmacy?

- B3. Staff take adequate breaks during their shifts.
- B9. We feel rushed when processing prescriptions. (negatively worded)
- B12. We have enough staff to handle the workload.
- B16. Interruptions/distractions in this pharmacy (from phone calls, faxes, customers, etc.) make it difficult for staff to work accurately. (negatively worded)

Reliability of this composite—Cronbach's alpha (4 items) = .68

7. Communication About Prescriptions Across Shifts

(Never, Rarely, Sometimes, Most of the Time, Always, Does Not Apply or Don't Know)

How often do the following statements apply to this pharmacy?

- B4. We have clear expectations about exchanging important prescription information across shifts.
- B6. We have standard procedures for communicating prescription information across shifts.
- B14. The status of problematic prescriptions is well communicated across shifts.

Reliability of this composite—Cronbach's alpha (3 items) = .85

Note: Negatively worded questions should be reverse coded when calculating percent "positive" response, means, and composite scores.

8. Communication About Mistakes

(Never, Rarely, Sometimes, Most of the Time, Always, Does Not Apply or Don't Know)

How often do the following statements apply to this pharmacy?

- B8. Staff in this pharmacy discuss mistakes.
- B13. When patient safety issues occur in this pharmacy, staff discuss them.
- B15. In this pharmacy, we talk about ways to prevent mistakes from happening again.

Reliability of this composite—Cronbach's alpha (3 items) = .85

9. Response to Mistakes

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does Not Apply or Don't Know)

How much do you agree or disagree with the following statements?

- C1. Staff are treated fairly when they make mistakes.
- C4. This pharmacy helps staff learn from their mistakes rather than punishing them.
- C7. We look at staff actions and the way we do things to understand why mistakes happen in this pharmacy.
- C8. Staff feel like their mistakes are held against them. (negatively worded)

Reliability of this composite—Cronbach's alpha (4 items) = .83

10. Organizational Learning—Continuous Improvement

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does Not Apply or Don't Know)

How much do you agree or disagree with the following statements?

- C2. When a mistake happens, we try to figure out what problems in the work process led to the mistake.
- C5. When the same mistake keeps happening, we change the way we do things.
- C10. Mistakes have led to positive changes in this pharmacy.

Reliability of this composite—Cronbach's alpha (3 items) = .76

Note: Negatively worded questions should be reverse coded when calculating percent "positive" response, means, and composite scores.

11. Overall Perceptions of Patient Safety

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does Not Apply or Don't Know)

How much do you agree or disagree with the following statements?

- C3. This pharmacy places more emphasis on sales than on patient safety. (negatively worded)
- C6. This pharmacy is good at preventing mistakes.
- C9. The way we do things in this pharmacy reflects a strong focus on patient safety.

Reliability of this composite—Cronbach's alpha (3 items) = .79

Note: Negatively worded questions should be reverse coded when calculating percent "positive" response, means, and composite scores.

Composite scores are not calculated for Documenting Mistakes and the Overall Rating

Documenting Mistakes

(Never Documented, Rarely Documented, Sometimes Documented, Most of the Time Documented, Always Documented, Does Not Apply or Don't Know)

In this pharmacy, how often are the following types of mistakes **documented (in writing OR tracked electronically)**?

- D1. When a mistake reaches the patient and could cause harm but does not, how often is it documented?
- D2. When a mistake reaches the patient but has no potential to harm the patient, how often is it documented?
- D3. When a mistake that could have harmed the patient is corrected BEFORE the medication leaves the pharmacy, how often is it documented?

Overall Rating on Patient Safety

Think back on the survey topics and the definition of patient safety—dispensing the right medication accurately and making sure patients understand their medications and how to use them.

(Poor, Fair, Good, Very good, Excellent)

- E1. How do you rate this pharmacy on patient safety?

FOR TECHNICAL ASSISTANCE OR QUESTIONS ABOUT THE PHARMACY SURVEY ON PATIENT SAFETY CULTURE, PLEASE EMAIL SAFETYCULTURESURVEYS@AHRQ.HHS.GOV.

Appendix A. Sample Data Collection Protocol for the Pharmacy Point of Contact: Paper Survey

Data Collection Tasks and Schedule for the *Pharmacy Survey on Patient Safety Culture*

Listed below are the schedule and tasks for administering the paper survey. Fill in the dates for your survey. Post this protocol in your office to remind you of the schedule.

Target Date	Activity
One week before survey distribution Date: _____	Print and post publicity materials. Post survey flyers throughout the pharmacy (e.g., on bulletin boards, in work areas). Promote survey throughout the data collection period.
Beginning of Week 1 (Start of Survey Data Collection) Date: _____	Distribute survey packets to all staff members on the survey distribution list. Consider distributing the packets at staff meetings and encourage survey participation. Caution staff, however, not to discuss their answers if they complete their surveys during the meeting.
Beginning of Week 2 Date: _____	Distribute a second survey packet. If you are not using individual identifiers to track respondents, distribute second survey packets to all staff. If you are using identifiers to track respondents, distribute second survey packets only to nonrespondents.
Near End of Week 2 Closeout Date: _____	Calculate preliminary response rate. If the rate is high enough, close out data collection at the end of Week 2. To increase your response rate, extend data collection by a few days or a week. If your response rate is lower than 50 percent, consider distributing reminder cards to all staff (or only to nonrespondents if you are using identifiers). It may be sufficient to remind staff in person to complete the survey.
New Closeout Date: _____	Close out extended data collection.

Appendix B. Sample Data Collection Protocol for the Pharmacy Point of Contact: Web Survey

Data Collection Tasks and Schedule for the *Pharmacy Survey on Patient Safety Culture*

Listed below are the schedule and tasks for administering the Web survey. Fill in the dates for your survey. Post this protocol in your office to remind you of the schedule.

Target Date	Activity
One week before starting data collection Date: _____	Print and post publicity materials. Post survey flyers throughout the pharmacy (e.g., on bulletin boards, in work areas). Promote survey throughout the data collection period.
A few days before starting data collection Date: _____	Email the prenotification message about survey. Send the invitation to all staff with email access in the pharmacy. You can share the message with staff without email access.
Beginning of Week 1 (Start of Survey Data Collection) Date: _____	Email the survey invitation (or announce the start of data collection). If the survey is hosted on the Web, include a hyperlink (URL) and password in the email invitation. If the survey is hosted on the pharmacy Intranet, provide instructions for locating and taking the survey.
One week later Date: _____	Distribute first reminder notice. Email your prepared reminder notices or distribute reminder cards to all staff. If you are using identifiers to track respondents, email/distribute reminders only to nonrespondents. It may be sufficient to remind staff in person to complete the survey.
One week after first reminder Date: _____	Distribute second reminder notice. Email your second reminder notice to all staff (or only to nonrespondents if you are using reminders). It may be sufficient to remind staff in person to take the survey.
Near end of Week 3 Closeout Date: _____	Calculate preliminary response rate. If the rate is high enough, close out data collection at the end of Week 3. To increase your response rate, extend data collection by a few days or a week. If your response rate is lower than 50 percent, email or distribute third reminders to all staff (or only to nonrespondents if you are using identifiers). It may be sufficient to remind staff in person to complete the survey.
New Closeout Date: _____	Close out extended data collection.

Appendix C. Sample Data Collection Protocol for the Pharmacy Point of Contact: Mixed-Mode Survey

Data Collection Tasks and Schedule for the *Pharmacy Survey on Patient Safety Culture*

Listed below are the schedule and tasks for administering the survey when you are using both Web and paper surveys in the same pharmacy. Fill in the dates for your survey. Post this protocol in your office to remind you of the schedule.

Target Date	Activity
One week before starting data collection Date: _____	Print and post publicity materials. Post survey flyers throughout the pharmacy (e.g., on bulletin boards, in work areas). Promote survey throughout the data collection period.
A few days before starting data collection Date: _____	Email the prenotification message about the Web survey. Send the invitation to all staff with email access in the pharmacy. You can share the message with staff without email access.
Beginning of Week 1 (Start of Survey Data Collection) Date: _____	Email the survey invitation (or announce the start of data collection). If the survey is hosted on the Web, include a hyperlink (URL) and password in the email invitation. If the survey is hosted on the pharmacy Intranet, provide instructions for locating and taking the survey.
Beginning of Week 2 Date: _____	Distribute first reminder notice. Email your prepared reminder notices or distribute reminder cards to all staff. If you are using identifiers to track respondents, email/distribute reminders only to nonrespondents. It may be sufficient to remind staff in person to take the survey.
Beginning of Week 3 Date: _____	Distribute paper survey packets. Distribute paper survey packets to all staff (or only to nonrespondents if you are using identifiers).
Near end of Week 3 Closeout Date: _____	Calculate preliminary response rate. If the rate is high enough, close out data collection at the end of Week 3. To increase your response rate, extend your data collection by a few days or a week and distribute second reminders to all staff (or only to nonrespondents if you are using identifiers). It may be sufficient to do in-person reminders.
New Closeout Date: _____	Close out extended data collection.

